

## **Appendix A**

### **Past, Present, and Reasonably Foreseeable Actions Relevant to the Cumulative Effects Analysis**

The cumulative effects analyses provided in **Section 3.6.4 – Cumulative Effects** uses this information. Instead of listing all these projects numerous times, they are provided here and the cumulative effects discussion will refer to this section

#### **Cumulative Effects Area of Analysis**

The cumulative effects area of analysis varies by Project and resource area. See each Project below for definition of cumulative effects analysis area.

#### **Past, Present, and Reasonably Foreseeable Actions**

The IDT has made the following assumptions about activities on private, state or federal lands that may influence cumulative effects analysis for this project:

1. Drilling for mineral exploration is most likely to cause cumulative impacts for this project because drilling would cause greatest possible overlap in noise effects, and would contribute to cumulative temporary road quantity.
2. Vegetation projects could affect cumulative temporary road construction and use as well as contribute to noise effects.

#### **Minerals management projects on National Forest System land.**

A map for current and recent past prospecting and lease activities on Federal and non federal lands is not included in this BA, but is available on the SNF website at [www.fs.usda.gov/superior](http://www.fs.usda.gov/superior) or available upon request (either paper copy or digitally).

The following list includes current and proposed minerals management projects on the Superior NF. The exploration projects are anticipated to construct a total of 10 miles or less of temporary access roads. Temporary roads are not authorized for use by the public, and a relatively low amount of traffic comprised of vehicles conducting resource management would be on these roads. The effects from these projects are considered in the appropriate cumulative effects sections of Chapter 3.

- PolyMet Mining, Inc.: North Met Project– Proposed hardrock mine and land exchange. Reserved and outstanding minerals. EIS is ongoing.
- PolyMet Mining, Inc. – Permitted. Reserved minerals. Drilling and soil boring. NorthMet Mine site. 123 drill holes and up to 10 soil borings. Categorical Exclusion (CE) signed February 24, 2009. Work began on January 10, 2010 and the CE will expire on January 10, 2011. 66 of the 123 permitted drill holes were completed at 65 sites with 0.57 miles of temporary road construction. Reclamation of all permitted drill sites and temporary road was completed by April, 2010.

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- Encampment Minerals Inc. – Permitted. Federal Minerals. Drilling. T62N R11W Sec 25, T61N R11W Sec 2, 10 Revised Kawishiwi EA project. 44 drill holes, 2.5 miles of temporary road construction permitted. 6 sites drilled with 0.34 miles of temporary road construction completed. Reclamation of completed drill sites and temporary roads completed by April 2010.
- Encampment Minerals Inc. – Permitted. Reserved minerals. T57N R14W Sec. 3 and T58N R14W Sec 34. CE signed December 8, 2009 permitting 13 core drilling sites and 0.97 miles of temporary road construction. No work on this project has been completed.
- Encampment Minerals Inc. – Permitted. Reserved Minerals. T59N, R14W Sec. 25 and 26. CE signed December 8, 2009 permitting 6 core drilling sites and 0.33 miles of temporary road construction. No work on this project has been completed.
- Twin Metals Minnesota LLC – Permitted. Federal minerals. Drilling. Kawishiwi EA project. T61N, R11W, Sec.4 and 8 and T62N, R11W, Sec. 33, 34, and 35. 10 core drilling sites and 1.1 miles of temporary road construction permitted. 4 sites have been completed including interim site reclamation and temporary road closure.
- Franconia Minerals Corporation – Permitted. Federal minerals. Drilling. Kawishiwi EA project. T61N, R11W, Sec 5 and 6, T62N, R11W, Sec. 32. 23 core drilling sites and 2.1 miles of temporary road construction permitted. Company has not implemented this project.
- Prime Meridian – Permitted. Reserved Minerals Phase I - Geophysical survey. T57N R14W, Sections 28 and 33.
- Franconia Minerals Corporation – Permitted. Outstanding Minerals. Birch Lake. T61N, R12W, Sec 25, Lots 5&6. 1 core drilling sites and associated temporary road access. Company has not implemented this project.
- Seppi Bros. Concrete Products Corporation – Permitted. Gravel quarry. Five year mineral material contract renewal. Contract renewed on January 26, 2010. Estimated production over the term of the contract is expected around 400,000 cubic yards of sand and gravel valued at \$380,000.00.
- Cold Springs Granite Company– Permitted. Mesabi Black Granite quarry. Five year mineral material contract renewal. Contract renewed on June 15, 2010. Estimated production over the term of the contract is expected around 550,000 cubic feet of dimension stone valued at \$481,750.00.
- Cold Spring Granite Company– Permitted. Lake Superior Green Granite quarry. Five year mineral material contract renewal. Contract renewed on December 12, 2010. Estimated production over the term of the contract is expected around 100,000 cubic feet of dimension stone valued at \$94,750.00.
- Encampment Minerals, Inc – Proposed core drilling and geophysical surveys. Reserved minerals. T56N, R12W, Sec. 17. 1 proposed drill site with associated geophysical survey lines and 0.86 miles of temporary road construction.
- Encampment Minerals, Inc. – Proposed core drilling. Reserved minerals. T57N, R14W, Sec. 10. 2 proposed core drilling sites and 0.88 miles of temporary road construction.
- Encampment Minerals, Inc. – Proposed core drilling. Reserved minerals. T60N, R12W, Sec. 21. 4 core drilling sites and 0.22 miles of temporary road construction proposed.

## **Vegetation Management Projects**

Timber management activities will continue to affect forest resources and lynx habitat over the next 20 years. The Forest Plan (USDA 2004) projected probable timber harvests for the first decade after plan implementation at approximately 131,908 acres and for the second decade at approximately 132,416 acres. This suggests that nearly 30 percent of the 944,908 acres of forest land suitable for timber management may be harvested by 2024.

Vegetation management activities will continue to have effects over time on transportation through the development of temporary roads and continued improvement and use of existing roads, noise, vegetation, potential soil erosion, and other resources on the forest.

**Table Appendix A-1: Past, present, and reasonably foreseeable future vegetation management projects on the Superior National Forest**

<b>Project Name</b>	<b>District</b>	<b>Decision Date</b>	<b>Project Description</b>
Border EIS	LaCroix	2009	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan. The Project Area encompassed NFS land south of Voyageurs NP, west of the BWCAW, north of Echo Lake, and east of the Forest proclamation boundary to include all or portions of sections in T65-68N and R16-19W.
Clara EA	Tofte	2009	Vegetation management project to create young forest through final harvest, improving stand diversity through intermediate harvest and restoring forest conditions through site preparation and prescribed burning. Temporary roads were to be used for access. Project area to include T60N R3W, T61N R3 and 4W, T62N R3 and 4W, T63N R2 and 3W.
Glacier EIS	Kawishiwi	2009	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan. The Project Area encompassed NFS land from approximately 5 to 20 miles east of Ely in the vicinity of the Fernberg Road and Highway 1 to include all or portions of sections in T61N R9W, T62N R10W, T63N R11W.
Maple Hill EA	Gunflint	2009	Fuel reduction project through timber harvest. Project Area was located in Cook County in T62N R1W.
Cascade EA	Gunflint	2008	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan.
Devil Trout EA	Gunflint	2007	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan.
Echo Trail Forest Mgt EIS	LaCroix Kawishiwi	2007	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan. The Project Area encompassed NFS land north and south of Echo Trail County RD 116 from Vermillion River to Burntside Lake and Lake Vermillion to BWCAW to include T62-66N R11-17W.
Mid-Temperance Vegetation Management EA	Tofte	2007	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan
Whyte Forest Management EA	Laurentian	2007	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions

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Project Name	District	Decision Date	Project Description
			stated in the Forest Plan
Inge South	Tofte	2006	Vegetation management project to move existing forest vegetation condition and transportation system towards the desired conditions stated in the Forest Plan.
Dunka EA	Kawishiwi	2005	Transportation actions do not include construction of new roadways. There will be proposed vegetative management projects that will include logging and replanting. These will be managed through the standards and guidelines of the Forest Plan and the State Best Management Practices
Twins EA	Gunflint	Expected 2010	This project proposes creating a young forest through final harvest, improving stand diversity through intermediate harvest, and restoring forest conditions through site preparation and prescribed burning. Temporary roads would be used for access. The Project Area includes T63N R1W-R1E and T62N R1W-R1E.
Tracks Project EIS	Laurentian	Expected 2010	The Laurentian Ranger District proposes to manage the vegetation condition and transportation system towards the desired conditions stated in the Forest Plan. The Tracks Project Area is located approximately 10 miles east and southeast of Aurora, MN and approximately 40 miles north of Duluth in St. Louis and Lake Counties. Activities could be located on NFS land in portions of T56-59N R11-14W.
Toohey Project EA	Tofte	Expected 2011	The Tofte District proposes to create young forest and improve stand diversity through harvest, and restore forest conditions and reduce hazardous fuels through site preparation and prescribed burning. Temporary roads would be used for access. The Project Area stretches about 25 miles northeast from the eastern side of Dumbbell Lake to Sawbill Lake and including T59N R6-7W, T60N R5-7W, T61N R4-6W, and T62N R4-5W.
Birch Project EA	Kawishiwi	Nov 2011	The Kawishiwi District proposes to manage the vegetation and road system in the Birch Project Area towards the desired conditions stated in the Forest Plan. The Project Area is located near Ely, MN and south and west of Ely and project activities could be located on NFS land in portions of T61-63N R11-13W.

## Roads Projects

**Table Appendix A-2: Past, present, and reasonably foreseeable future vegetation management projects on the Superior National Forest**

Project Name	District	Decision Date	Project Description
FR 424 Reconstruction EA	Kawishiwi	2009	Minor road realignment, widening, and paving of FR 424 (Denley Road) and minor ATV/snowmobile trail reroutes on the Stony Spur Trail. Project Area located southeast of Babbitt, MN to include T60N R10-12W.
Travel Management Proposal	Forest-wide	ongoing 2010	Transportation actions do not include construction of new roadways. There will be proposed vegetative management projects that will include logging and replanting. These will be managed through the standards and guidelines of the Forest Plan and the State Best Management Practices
Hwy 1 Construction	Laurentian/La Croix	Ongoing 2010	The impacts to the surface hydrology and water quality are subject to state and federal permits. A storm-water management plan and erosion control plan are typically required by these permitting authorities to minimize the impact

			to water resources during construction and after the project has been completed.
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## **Recreation Projects**

Recreational use of the Forest for winter, water-based, and developed land activities is predicted to grow faster than the population (USDA 2004a). An indicator of this growth is seen in the 9.3 million Recreational Visitor Days on the Superior National Forest in 2000, up nearly four times than the same measure 3 years earlier. The Forest Plan (USDA 2004a) reported that motorized noise-producing recreational activities (e.g., off-road driving, snowmobiling, motor-boating) in the Northern Region of the state would increase by 5 to 13 percent by 2020. On the Forest, up to 90 miles of new ATV trails and 130 miles of new snowmobile trails may be designated within the next few years (USDA 2004). The statistics and proposed practices in the Forest Plan suggest that additional trail development and the continued growth of outdoor recreation use (including several noise-producing activities) both on and off the Forest will continue to rise over the next several years and affect Forest resources and users.

Past, on-going and future projects and activities will continue to impact a visitor's opportunity for solitude in the wilderness. Activities that may contribute impacts to the wilderness character of solitude include:

- Vegetation management projects near the boundary
- Prescribed burning and wildfire suppression with aircraft, motorboats, generators, etc.
- Fire patrols with aircraft
- Search and rescue missions with aircraft
- Law Enforcement with motorboats and aircraft
- Approved Department of natural Resources activities with motorboats and aircraft
- Department of Homeland Security border security activities with motorboats and aircraft
- Forest-wide Travel Management Project (this would reduce negative effects to solitude by reducing roads and OHV travel routes near the wilderness)
- Recreation activities on state, county, and private land
- Vehicle traffic on roads and entry points near the wilderness
- Recreational motorized use inside wilderness (watercraft, OHV, snowmobiles)
- Illegal motorized use in the BWCAW

**Table Appendix A-3: Past, present, and reasonably foreseeable future vegetation management projects on the Superior National Forest**

Project Name	District	Decision Date	Project Description
South Fowl Lake Snowmobile Access Project EIS	Gunflint	Expected Nov 2011	The project would provide safe access for snowmobilers/anglers to South Fowl Lake. This would route current access off County roads to improve safety for drivers and snowmobilers. The Project Area includes the McFarland Lake/South Fowl Lake area (T64N R3E Sections 10-12).
Tomahawk Trail Victor Lake By-pass EA	Tofte	On hold	Permission has been denied for the Tomahawk Snowmobile Trail where it is on private property near Victor Lake. This project is considering alternative trail routes in T60N R9W Section 13 and vicinity.

### **Other Activities on Other Ownerships**

Within the proclamation boundary, there are approximately other lands that are not National Forest. These lands of other ownership may be owned by private individuals, industrial groups or the state of Minnesota, but all the lands are referred to in the biological evaluation as “private lands” or “lands of other ownership.”

Activities on these private, state or federal lands that may influence cumulative effects analysis for some resource areas for this project include mining, quarries, mineral exploration, mineral processing plants, timber harvesting, and recreational activities (including motorized and non-motorized uses).

Current and past minerals prospecting and lease activities on non-federal lands are available on the Superior NF website at [www.fs.usda.gov/superior](http://www.fs.usda.gov/superior) or available upon request (either paper copy or digitally).

On State of Minnesota land, Subsection Forest Management Plans<sup>1</sup> for the North Shore and Border Lakes Subsections show that there are access needs for resource management, but these are almost all ‘resource management access routes’ and ‘temporary access routes’ that are closed to motorized use by the public (see these State Plans in the project file). Roads built on private land for resource management projects would likely not be accessible to the public.